West Virginia Department of Environmental Protection
Division of Air Quality

Fact Sheet

For Draft/Proposed Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-01100007-2003**
Plant Identification Number: **011-00007**
Permittee: **Inco Alloys International, Inc.**
Mailing Address: **3200 Riverside Drive, Huntington, West Virginia 25705**

Physical Location: Huntington, Cabell County, West Virginia
UTM Coordinates: 379.20 km Easting • 4252.30 km Northing • Zone 17
Directions: Interstate 64 W to 29th Street Exit (Route 60), go towards Huntington on Route 60 to Washington Road intersection with Route 60. Make a right and go across Washington Road bridge. Right turn on Riverside Drive. Enter plant through Main Gate.

Facility Description

Inco Alloys International, Inc. is a nickel manufacturing facility covered by Standard Industrial Classification (SIC) 3356. The facility has the potential to operate seven (7) days per week, twenty-four (24) hours per day and fifty-two (52) weeks per year. Inco Alloys rolling mill is devoted exclusively to the production of wrought nickel and high nickel alloy products. This facility produces ingots, slabs, plate, sheet, strip, billets, rods, wire, pipe and tubing in approximately one hundred and twenty (120) different alloys.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]

Criteria Pollutants	Potential Emissions	2001 Actual Emissions
Carbon Monoxide (CO)	172.43	36.9
Nitrogen Oxides (NO_X)	622.25	136
Particulate Matter (PM_{10})	1085	50
Total Particulate Matter (TSP)	1277	50
Sulfur Dioxide (SO_2)	4.16	0.59
Volatile Organic Compounds (VOC)	53.4	25.22

PM_{10} is a component of TSP.

Hazardous Air Pollutants	Potential Emissions	2001 Actual Emissions
Nickel	190.775	7.09
Chromium	56.006	2
Manganese	9.211	0.2
Cobalt	1.259	0.05
Hydrochloric Acid	20	2.2
Hydrofluoric Acid	3.72	0.7
Methanol	1.35	0.7

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

This facility has the potential to emit 172.43 tons per year of Carbon Monoxide, 622.25 tons per year of Nitrogen Oxides, 1277 tons per year of Particulate Matter, 190.775 tons per year of Nickel, and 56.006 tons per year of Chromium. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs, Inco Alloys, International, Inc. is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	PM limits on boilers.
	45CSR6	Open burning prohibited.
	45CSR7	PM limits on manufacturing processes.
	45CSR10	SO_2 limits.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction Permits.
	45CSR15	HAP Emission Standards
	45CSR30	Operating permit requirement.
	45CSR34	HAP Emission Standards for Part 63 Sources
	WV Code § 22-5-4(a)(14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 63, Subpart N	Chromium Electroplating MACT
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.,* 45CSR16, 45CSR15, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit *(if any)*
R13-0137	March 24, 1975	
R13-1165	November 3, 1989	
R13-1646	December 1, 1993	
R13-1767	October 17, 1994	
R13-2163	January 14, 1998	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B, which may be downloaded from DAQ's website.

Determinations and Justifications

45CSR2: The Main Boiler (B-1-P), V.I.M. Boiler (B-4-P), West Pickle Salt Bath (CD-32-P), and CAP Salt Bath (SM-5-P) burn natural gas only as required by Permit Condition 3.1.16. Natural gas is inherently clean burning and does not produce any visible emissions (with the exception of water vapor on cold days) from the exhaust stacks. Based on AP-42 factors, the amount of particulate emissions released in combustion gases are far below the emission limits calculated when 45CSR2 (0.09 x MMBTU/Hr. input) is applied to the burner rating. Increased PM emissions may result from poor air/fuel mixing or maintenance problems. Therefore, operating and maintaining the furnaces according to manufacturer's specifications will be sufficient, in lieu of Method 9 testing as required in Section 3.2, to ensure low PM emissions.
The West Pickle Salt Bath (CD-32P) and CAP Salt Bath (SM-5P) are exempt from Sections 4, 5, 6, 8, and 9 because they are under 10 million Btus/hr as stated in Section 11.1. The Main Boiler (B-1-P) is exempt from Section 4.4 because it was constructed before September 1, 1974 as stated in Section 4.5. All boilers are exempt from Sections 8.1.a. and 8.2. because they burn only natural gas and are less than 100 mmBtu/hr as stated in Sections 8.4.b. and 8.4.c.
The SIPed version of Rule 2 has a more stringent requirement in Section 7.03 to submit data on operating schedules and fuel quality. The West Pickle Salt Bath (CD-32P) and CAP Salt Bath (SM-5P) are exempt from this requirement because they are under 10 million Btus/hr as stated in Section 10.01 of the SIPed version.

45CSR7: The Title V application indicates there is only one source with actual emissions more than 50% of allowable emissions in the Hot Working Operations. The Plasma Torch (PM-3-P) has actual emissions of 2.4 pph and allowable emissions of 3.0 pph. None of the sources have actual emissions greater than the 6 pph that would require an NSR permit. Therefore, all sources in the Hot Working Operations shall monitor PM emissions by conducting visible emissions checks in accordance with Section 3.2.1. of this permit.

The Title V application indicates there are no sources with actual emissions more than 50% of allowable emissions in the Cold Working Operations and the Woodworking Operations. None of the sources have actual emissions greater than the 6 pph that would require an NSR permit. Therefore, all sources in the Cold Working Operations shall monitor PM emissions by conducting visible emissions checks in accordance with Section 3.2.1. of this permit.

There are no PM emissions expected from the sources listed in the Miscellaneous Equipment, Section 11 of the Permit and the Acid Reclaim Department. The comparison of actual to allowable emissions makes these sources insignificant, therefore, no monitoring will be required. The Vacuum Induction Furnace and th #2 through 7 Vacuum Arc Reduction Furnaces are under vacuum and therefore have no emissions and no stacks.

The actual emissions of mineral acids from the Pickling Tanks, determined through testing, are only a tiny fraction of the emissions allowed by 45CSR§7-4.2. Therefore, the only requirement to demonstrate compliance is to operate and maintain the pickling tanks in accordance with manufacturer's recommendations and specifications.

45CSR§10-3.3.f.: The boilers burn natural gas only which is inherently low in sulfur content and clean burning. The natural gas used at Huntington Alloys contains between 0.0010 to 0.0017 grains of sulfur/cubic foot of gas, this equates to 0.38 ppm of SO_x in combustion gas. This is much less than the emission limit set by 45CSR10. Therefore, maintaining the boilers in accordance with manufacturer's specifications will be sufficient monitoring for sulfur emissions. The West Pickle Salt Bath (CD-32P) and CAP Salt Bath (SM-5P) are exempt from Section 3 and Sections 6 through 8 because they are under 10 million Btus/hr as stated in Section 10.1. All boilers are exempt from Section 8 because they burn only natural gas and are less than 100 mmBtu/hr as stated in Section 10.3.
The SIPed version of Rule 10 has a more stringent requirement in Section 6.05 to submit data on fuel quantity and quality. The West Pickle Salt Bath (CD-32P) and CAP Salt Bath (SM-5P) are exempt from this requirement because they are under 10 million Btus/hr as stated in Section 9.01 of the SIPed version.

45CSR§10-4.1.: The furnaces burn natural gas only. Natural gas is inherently low in sulfur content and clean burning with no visible emissions from the exhaust stacks. Based on the total natural gas usage at Huntington Alloys in 1995, the AP-42 SO_x emission factor of 0.6 lbs/mmcf, and the amount of air needed to support natural gas combustion, the volumetric amount of SO_x was calculated to be 0.383 ppm from natural gas combustion. This calculation equates with a recent stack test completed on the plate anneal furnace. The stack test indicated that the plate anneal furnace emitted 0.35 ppm of SO_x. This is much less than the 2,000 ppm emission limit set by 45CSR10. Therefore, maintaining the furnaces in accordance with manufacturer's specifications will be sufficient monitoring for sulfur emissions.

45CSR§§10-4.1. and 8.2.c.: All manufacturing processes except for the Argon Oxygen Reactor (MS-1A) and the Electric Arc Furnaces (MS-1D, MS-1B) are exempt from this section in accordance with 45CSR§10-4.1.e. The required monitoring plans for the Argon Oxygen Reactor (MS-1A) and the Electric Arc Furnaces (MS-1D, MS-1B) have been submitted and approved by WV DAQ.

45CSR13: *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, and Procedures for Evaluation.*

R13-0137: Permit to construct two Lime Storage Bins authorizes the requirement that storage bins be equipped with a baghouse.

R13-1165: Permit to construct a Plasma Cutting Torch (PM-20-P) authorizes the limits on PM emissions and operating hours. The PM emission limitation is recorded in the NSR permit to inventory the emissions. The limit is very small and may be considered environmentally insignificant. Therefore, the only monitoring required will be a visible emissions check as is required for other equipment with PM emissions. Monthly recordkeeping will be required for the limit on operating hours.

R13-1646: Permit to construct a Salem Tip-up furnace authorizes the hourly limits on criteria pollutant emissions, natural gas consumption, and alloy rod processing. The requirement to monitor natural gas consumption is established in the NSR permit. The criteria pollutant emission limits are calculated based on maximum natural gas consumption, therefore compliance with the limits will be demonstrated by monitoring

natural gas consumption. The testing requirement for NO_x emissions stated the method of testing and not frequency, therefore the testing requirement was streamlined with the facility-wide testing requirement. The alloy rod processing limit is equal to the maximum processing rate of the new equipment and is listed in the NSR permit for inventory purposes. Therefore, no monitoring will be required for determining compliance with the hourly limit on the amount of alloy rod processed.

R13-1767: Permit to construct a Plate Anneal Furnace authorizes the natural gas only and design heat input requirements, as well as hourly limits on criteria pollutant emissions, natural gas consumption, and alloy plate processing. The requirement to monitor natural gas consumption is established in the NSR permit. The criteria pollutant emission limits are calculated based on maximum natural gas consumption, therefore compliance with the limits will be demonstrated by monitoring natural gas consumption. The requirement to conduct tests to determine compliance with the NO_x emission limitations was completed on December 20, 1995. The tests showed the NOx emission rate to be 0.35 pounds per hour, much less than the 2.5 pounds per hour required by the permit.

R13-2163: Permit to construct Forge Furnaces F-101 and F-102. Hourly and annual limits on criteria pollutant emissions for each furnace and both furnaces together and natural gas consumption are authorized by Permit R13-2163. Permit also authorizes requirement to burn natural gas only, limit on sulfur content in the fuel, and design heat input maximum. Recordkeeping requirements were established in the NSR permit.

45CSR§21-28 Petroleum storage in fixed roof tanks - Gasoline Tank, Diesel Tanks, Kerosene Tank and Isopropyl Tank are not subject to this rule because their capacity is less than the 40,000 gallon threshold trigger for this rule. The oil product storage tanks are not subject to this rule (with the exception of record keeping section 28.5.b) because the tanks contents have a vapor pressure that is less than the 10.5 Kilopascal vapor pressure regulatory trigger. Inco Alloys is not subject to the record keeping requirements of section 28.5.b because the vapor pressure of the oil product storage tanks contents is less than the 7.0 Kilopascal vapor pressure regulatory trigger.

45CSR§21-30 Solvent Metal Cleaning - This regulation is applicable to the cold degreasing units because the units have solvent agitation. However, the vapor pressure of the solvents is less than the regulatory vapor pressure trigger level of 15 mmHg which exempts the degreasing units from Sections 30.3.a.2.and 3. of 45CSR21. The cold solvent degreasing subgroup falls under the jurisdiction of 45CSR21. The cold degreasing units were registered with the WV Office of Air Quality as required by 45CSR21.

40CFR Part 60 subpart Kb: There are approximately 160 tanks greater than 100 gallons capacity at the Huntington plant. Of these about 45 contain petroleum derived liquids. Only six tanks; United Mill Soluble Oil Tank (22-11438), Sol. Water Tmt. South Tank Soluble Oil (22-11439), Sol. Water Tmt. North Tank (22-11417), Sol. Water Tmt. North Tank Used Oil (22-11B35), Sol. Water Tmt. South Tank Used Oil (22-11B36), and East Pickle House Emulsion Cleaner (22-11221) are subject to the recordkeeping requirements of 60.116b(a) and (b).

40CFR Part 63 subpart N - National Emission Standards for Chromium Emissions From Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks - The Die Room Chrome Plater and Cold Draw Hard Chrome Plating Tank are subject to this NESHAP. The hard chrome plating process at the facility is a small hard chrome plating process according to EPA standards. The maximum potential cumulative rectifier capacity of 5,880,000 amp-hrs/yr. is far below the 60,000,000 amp-hrs/yr small source cutoff. A packed bed scrubber is utilized as the control device.

MACT 112(j) Hammer Application

The facility was required to submit a Part 1 application by May 15, 2002. The applicant's Part 1 application was received on May 16, 2002. The applicant identified the following MACT source categories as potentially being applicable: Subpart DDDDD - Industrial/Commerical/Institutional Boilers & Process Heaters MACT.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

40CFR Part 60 subpart Dc - New Source Performance Standards (NSPS) for boilers. The Main Boiler and V.I.M. boiler were constructed before June 9, 1989 and have not been modified after that date. The CAP Salt Bath and West Pickle Salt Bath have capacities less than 10 mmBtu/hr.

40CFR Part 60 subpart K - All tanks at the Inco Alloys facility were constructed after 1978. In addition, all of the VOC product storage tanks (except gasoline storage) are under the 6.5 Kilopascal vapor pressure threshold trigger for this rule.

40 CFR 60 Subpart Ka - Gasoline Tank, Diesel Tanks, Kerosene Tank and Isopropyl Tank are not subject to this rule because their capacity is less than the 40,000 gallon threshold trigger for this rule. Some of the oil product storage tanks exceed the 40,000 gallon trigger but are not subject to 60.112a (a) because the vapor pressures of the oil products are less than the 10.3 Kilopascal trigger or are not subject to 60.115a(A) (Monitoring of Operations) because the vapor pressures of the oil products are less than the 6.9 Kilopascal trigger in accordance with 60.115a(d)(1).

40 CFR 60 Subpart Kb - Other than the requirements of paragraphs (a) and (b) of 60.116b, the diesel, kerosene, isopropanol and gasoline tanks are not subject to the provisions of this subpart because their capacity is less than 19,813 gallons. The oil product storage tanks are not subject to the provision of this subpart because the products contained within the tank have a vapor pressure that is lower than 3.5 Kilopascals.

40 CFR Part 60 Subpart AAa - The #4 Electric Arc Furnace, #5 Electric Arc Furnace, and AOD vessel were installed in 1966, 1971, and 1971 respectively, before the applicability date of this regulation (October 21, 1974). Therefore, this regulation is not applicable to the facility.

40 CFR Part 63 - Subpart CCC - HCl Pickling NESHAPS - This standard is not applicable to facilities that pickle specialty steel. Specialty Steel means a category of steel that includes silicon electrical, alloy and stainless steels.

Request for Variances or Alternatives

None.

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: KEYBOARD(Date of Notice Publication)
Ending Date: KEYBOARD(Publication Date PLUS 30 Days)

All written comments should be addressed to the following individual and office:

Bobbie Scroggie, Engineer
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
7012 MacCorkle Avenue, SE
Charleston, WV 25304-2943

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and

may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

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